

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

MALVERN PANALYTICAL, INC.,

Plaintiff,

v.

TA INSTRUMENTS-WATERS LLC and
WATERS TECHNOLOGIES
CORPORATION,

Defendants.

Civil Action No. 19-2157-RGA

MEMORANDUM OPINION

Rodger D. Smith II, Michelle Streifthau-Livizos, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington DE; Daniel P. Muino (argued), Fahd H. Patel (argued), MORRISON & FOERSTER LLP, Washington, DC, Attorneys for Plaintiff.

Karen L. Pascale, Robert M. Vrana, YOUNG CONAWAY STARGATT & TAYLOR LLP, Wilmington DE; Matthew M. Wolf (argued), Jeffrey A. Miller (argued), Jonathan Swisher (argued), David McMullen, ARNOLD & PORTER KAYE SCHOLER LLP, Washington, DC, Attorneys for Defendants.

March 15, 2021

/s/ Richard G. Andrews

ANDREWS, UNITED STATES DISTRICT JUDGE:

Before me is the issue of claim construction of multiple terms in U.S. Patent Nos. 8,449,175 (the '175 Patent), 8,827,549 (the '549 Patent) (collectively, "the Plotnikov patents"), 9,404,876 (the '876 Patent), 10,036,715 (the '715 Patent), and 10,254,239 (the '239 Patent) (collectively, "the Broga patents"). I have considered the Parties' Joint Claim Construction Brief. (D.I. 78). I held remote oral argument on January 7, 2021. (D.I. 89). I have also considered the supplemental briefing I requested after oral argument regarding Term 5 of the Plotnikov patents. (D.I. 90, 92).

I. LEGAL STANDARD

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). "[T]here is no magic formula or catechism for conducting claim construction.' Instead, the court is free to attach the appropriate weight to appropriate sources 'in light of the statutes and policies that inform patent law.'" *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

"[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in

question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (citations and internal quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19 (internal quotation marks omitted). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

“A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GMBH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citation and internal quotation marks omitted).

II. BACKGROUND

This case is about an automatic micro titration calorimetry system, which is a device typically used to measure thermodynamic changes that occur as a result of a binding or dissociative event during a biomolecular interaction. The claimed invention is a multi-component device consisting of, among other things, a titration needle that delivers titrant stored in the syringe to the sample cell where the observed biomolecular interactions take place. The device also contains a stirring paddle, operated by a stirring motor, to agitate the fluid in the sample cell.

The provisional application for the Plotnikov Patents was filed on November 1, 2007, and the first application for the Broga Patents was filed on December 2, 2008. (D.I. 59-2, Ex. D, F). The two Plotnikov Patents have a common specification. (D.I. 78 at 10 n.4). The three Broga Patents have a common specification. (D.I. 1 at ¶¶ 29-31). The two common specifications are different from each other; for claim construction purposes, the two sets of patents are unrelated and therefore extrinsic evidence to each other, unless otherwise noted. The following claims are the most relevant for the purposes of this Markman:

Claim 1 of the '549 Patent

1. A micro titration calorimetry system comprising:

an automatic pipette assembly comprising a titration needle arranged to be inserted into a sample cell for supplying titrant, a syringe for supplying titrant to the titration needle, a *stirring paddle* for stirring fluid in the sample cell, and a stirring motor for rotating the stirring paddle, and

a pipette guiding mechanism arranged to restrict the movement of the pipette assembly along safe paths to ensure that the titration needle cannot be damaged during movement thereof between different positions of operation.

(D.I. 59-2, Ex. E (the '549 Patent), claim 1) (emphasis added).

Claim 7 of the '549 Patent

7. The micro titration calorimetry system of claim 1, *wherein the sample cell has a volume of 200 microliters.*

(*Id.*, claim 7) (emphasis added).

Claim 8 of the '549 Patent

8. The micro titration calorimetry system of claim 1, wherein the automatic pipette assembly comprises an attachment section that engages at least one *alignment component of a calorimeter* to align the pipette assembly with respect to the sample cell when the titration needle supplies titrant to the sample cell.

(*Id.*, claim 8) (emphasis added).

Claim 10 of the '549 Patent

10. The micro titration calorimetry system of claim 1, *wherein the automatic pipette assembly comprises a housing comprising the syringe and the stirring motor.*

(*Id.*, claim 10) (emphasis added).

Claim 1 of the '876 Patent

1. *An automated isothermal titration micro calorimetry (ITC) system, comprising:*

a controller configured to control automated operation of the ITC system,

a micro calorimeter comprising a sample cell and a reference cell, the sample cell being accessible via a sample cell stem and the reference cell being accessible via a reference cell stem,

a pipette assembly comprising a syringe, a titration needle configured to be inserted into the sample cell and supply titrant to the sample cell, and an activator configured to drive a plunger in a cavity of the syringe,

a rotatable pipette translation unit comprising a rotatable pipette arm configured to support the pipette assembly and place the pipette assembly in a titration position and in a washing position,

a rotatable cell preparation unit comprising a rotatable cell arm configured to wash the sample cell and replace sample liquid in the sample cell,

the controller being configured to control operation of the ITC system to wash the syringe and titration needle of the pipette assembly, fill the syringe with new titrant, wash the sample cell, and fill the sample cell with new sample liquid

(D.I. 59-2, Ex. F (the '876 Patent), claim 1) (emphasis added).

Claim 14 of the '876 Patent

14. The system of any of claims 1, 2, and 3, comprising:

a syringe fluidics system configured to enable at least one of pulling and pushing *fluid* through the syringe,

a syringe fill port, and

a fill port connection unit configured to enable fluidic contact between the syringe cavity and the syringe fluidics system.

(*Id.*, claim 14) (emphasis added).

Claim 1 of the '715 Patent

1. *An isothermal titration micro calorimetry (ITC) system, comprising:*

a microcalorimeter,

a pipette assembly comprising a syringe with a fill port configured to provide fluidic contact with a cavity of the syringe and an activator configured to drive a plunger in the cavity of the syringe,

a rotatable pipette translation unit configured to place the pipette assembly in a titration position and in a washing position,

a rotatable cell preparation unit configured to wash a sample cell of the microcalorimeter and replace sample liquid in the sample cell when the pipette assembly is placed in another position than the position for titration, and

a fill port connection unit comprising a connection member configured to connect to the fill port thereby enabling fluid to transfer into the cavity of the syringe.

(D.I. 59-2, Ex. G (the '715 Patent), claim 1) (emphasis added).

III. CONSTRUCTION OF AGREED-UPON TERMS

I adopt the following agreed-upon construction:

| Claim Term | Construction |
|--|---|
| “a rotation pipette translation unit configured to place the pipette assembly in a titration position and in a washing position” (’239 Patent, claim 14) | “a rotatable pipette translation unit configured to place the pipette assembly in a titration position and in a washing position” |

IV. CONSTRUCTION OF DISPUTED TERMS¹

A. Plotnikov Patents

1. Term 1: “automatic pipette assembly” (’175/9, 15, 17, 24, 27, 28; ’549/1, 8, 10, 14, 17, 18)

- a. *Plaintiff’s proposed constructions:*
 - i. Plain and ordinary meaning OR
 - ii. “pipette assembly that can operate automatically”
- b. *Defendants’ proposed construction:*
 - i. “assembly with a pipette that automatically dispenses fluid”
- c. *Court’s construction:*
 - i. “pipette assembly that can operate automatically” (D.I. 89 at 28:4-17)

2. Term 2: “pipette guiding mechanism arranged to guide the pipette assembly” / “guiding mechanism” / “pipette guiding mechanism” (’175/9, 12, 16, 24, 27, 28; ’549/1, 2, 9, 14, 17, 18)

- a. *Plaintiff’s proposed constructions:*
 - i. Plain and ordinary meaning OR
 - ii. “mechanism that guides the pipette assembly”
- b. *Defendants’ proposed construction:*
 - i. “mechanism that manually guides the pipette assembly”
- c. *Court’s construction:*
 - i. “mechanism that manually guides the pipette assembly”

The parties dispute whether the claimed “pipette guiding mechanism” should be limited to manual operation.

¹ I ruled on some of the disputes at the claim construction hearing. For those, I merely repeat the ruling without any further explanation.

Plaintiff argues, “Neither the claim language nor the intrinsic record support” limitation of the “pipette guiding mechanism” to manual operation. (D.I. 78 at 13). The claim language, Plaintiff maintains, is agnostic as to whether the “pipette guiding mechanism” is manual or automatic because the claims that recite “pipette guiding mechanism” do not “make any mention of either manual or automatic operation.” (*Id.* at 13–14). Similarly, Plaintiff asserts that when the specification discloses “using the guiding mechanism” (D.I. 59-2, Ex. E at 8:34–42), the purpose of the mechanism “is to guide the pipette assembly into position”—whether this is done manually or automatically does not matter (D.I. 78 at 14–15). Plaintiff also argues that the prosecution history’s disclosure of a predecessor product with an automatic mechanism shows that a person of ordinary skill in the art (POSA) would have known that the “pipette guiding mechanism” could be operated manually or automatically. (D.I. 89 at 32:22–33:22).

Defendants argue instead that “pipette guiding mechanism” is a coined term without “ordinary and customary meaning” to a POSA and therefore must take its meaning from the intrinsic record. (D.I. 78 at 17). Multiple elements of the prosecution history, Defendants contend, indicate that “pipette guiding mechanism” refers solely to manual operation. (*Id.* at 18–22; D.I. 89 at 45:23–56:25).

First, in order to overcome an anticipation challenge during prosecution of the ‘782 Patent, which is the parent to the Broga patents, Plaintiff² told the examiner that “there is no teaching in Plotnikov indicating that a pipette guiding mechanism should provide automated translation of the pipette. The pipette guiding mechanism (510) of Plotnikov is purely a passive guiding mechanism arranged to prevent damage of the sensitive titration needle.” (D.I. 78 at 18) (quoting D.I. 62-2, Ex. P, 2014-4-16 Final Rejection Response at 10 (WATERS_00004938)).

² There is reference in the prosecution history to the Broga and Plotnikov Patents having a common assignee. The parties treat the assignee as being Plaintiff.

Defendants argue that this statement was incorporated into the intrinsic evidence for the Plotnikov patents when it was submitted as part of “records” in an information disclosure statement (IDS) during reexamination of the Plotnikov patents. (D.I. 78 at 18).

Second, Defendants assert that in Plaintiff’s provisional application for the Plotnikov Patents, Plaintiff presented as proof of novelty “guiding mechanism 14,” which displayed a manually operated guiding mechanism. (*Id.* at 19). Defendants further note that the picture presenting “guiding mechanism 14” is that of Plaintiff’s ITC200 system, which uses a manual “pipette guiding mechanism.” (*Id.* at 20) (citing D.I. 60, Ex. J, MALV_00002146-2149, at ¶ 8).

In reply, Plaintiff argues that “pipette guiding mechanism” is not a coined term but rather a “descriptive phrase composed of commonly understood words that had a plain meaning in the context of the claimed invention.” (*Id.* at 23). Plaintiff also disputes the incorporation of its statement from the ’782 patent prosecution history characterizing the “pipette guiding mechanism” as “passive,” arguing that statements from the prosecution history of an unrelated patent are not intrinsic evidence for claim construction (*id.* at 24–25) and that the statement was not from the portions of the records of the IDS that Defendants cited in their briefing (D.I. 90 at 2). Regarding the statement itself, Plaintiff maintains that the Plotnikov specification does not “expressly disclose” manual or automatic operation, so Plaintiff’s statement at reexamination should not be taken to limit claim scope solely to manual operation. (D.I. 89 at 36:4–38:11).

I agree with Defendants that “pipette guiding mechanism” is a coined term. Although the individual words “pipette,” “guiding,” and “mechanism” may be commonly understood, it does not automatically follow that “pipette guiding mechanism” is commonly understood in the art. *See Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 993 F.3d 1345, 1353 (Fed. Cir. 2019) (finding “high quality of service connection” to be a coined term). No evidence has been

presented that a “pipette guiding mechanism” was known or readily understandable to a POSA. Since Plaintiff has not shown that a “pipette guiding mechanism” has an “ordinary and customary meaning,” I find “pipette guiding mechanism” is a coined term.

Because coined terms have no “ordinary and customary meaning” known to a POSA, the relevant inquiry is to examine the intrinsic evidence for “objective boundaries to the scope of the term.” *Id.* Plaintiff’s statement during prosecution history of the ‘782 patent that the “pipette guiding mechanism” is “purely a passive guiding mechanism”—and that nothing in the specification indicates that it works automatically—operates as such an objective boundary. Plaintiff’s argument that a POSA would have known that the “pipette guiding mechanism” could be operated manually or automatically is contradicted by its argument in the ‘782 prosecution. Plaintiff overcame the anticipation challenge to the ‘782 patent by arguing that nothing in the Plotnikov patents teaches “automatic” operation of the “pipette guiding mechanism”; it cannot now argue that a POSA would nevertheless know that the “pipette guiding mechanism” can operate manually or automatically, or, to put it into patentese, teaches both manual and automatic operation.

With regard to whether Plaintiff’s statement from the prosecution history of the ‘782 patent should be incorporated into the intrinsic record of the Plotnikov patents, Plaintiff agreed that statements cited during the Plotnikov reexamination would become part of the intrinsic record. (D.I. 89 at 31:2–8). Although Plaintiff’s statement is not directly in the office actions originally cited by Defendants as part of the IDS, the statement is important to understanding the Examiner’s rejections for the ‘782 patent. The Examiner issued a non-final rejection, disagreeing with the patentee’s assertion that “Plotnikov fails to disclose that each one of the units are all automated and controlled by the system controller.” (D.I. 62-2, Ex. P, Broga ’782

Patent File History, 2014-11-10 OA (WATERS_00004911)). This rejection was cited during reexamination of the '175 patent. (*Id.*, Ex. J, '175 Patent Reexam File History, 2016-12-20 IDS, Cite No. 118 (MALV_00001231)). Plaintiff's statement that the "pipette guiding mechanism" of Plotnikov is "purely a passive guiding mechanism" provides relevant context for understanding the Examiner's rejection. Plaintiff's statement from the '782 prosecution history is therefore considered part of the intrinsic record of the '549 patent (and consequently of the '175 patent that shares a common specification with the '549 patent).

Coined terms, which have "no plain or established meaning" in the art, "cannot be construed broader than the disclosure in the specification." *Indacon, Inc. v. Facebook, Inc.*, 824 F.3d 1352, 1357–58 (Fed. Cir. 2016). As a coined term, I find that "pipette guiding mechanism" is limited by Plaintiff's statements during prosecution of the '782 patent that the Plotnikov specification does not teach that the mechanism operates automatically, which became part of the intrinsic record of the Plotnikov patents at reexamination.

I therefore adopt Defendants' construction of "pipette guiding mechanism": "mechanism that manually guides the pipette assembly."

3. Term 3: "stirring paddle" ('175/9, 24, 27, 28; '549/1, 14, 17, 18)

- a. *Plaintiff's proposed construction:*
 - i. Plain and ordinary meaning
- b. *Defendants' proposed construction:*
 - i. "paddle at the end of the titration needle"
- c. *Court's construction:*
 - i. Plain and ordinary meaning (D.I. 89 at 63:13-21).

4. Term 4: "wherein the sample cell has a volume of 200 microliters" ('175/14; '549/7)

- a. *Plaintiff's proposed construction:*
 - i. Plain and ordinary meaning
- b. *Defendants' proposed construction:*
 - i. "wherein the sample cell has a volume of exactly 200 microliters"

- c. *Court's construction:*
 - i. No construction necessary

Both parties agree that Plaintiff amended this claim during reexamination by removing “about” to modify “200 microliters” in order to overcome a written description rejection. (D.I. 78 at 36, 37) (citing D.I. 60, Ex. J, 2017-08-23 OA, at 6; 2017-10-23 Amendment, at 9). They disagree whether it is necessary to specify a “volume of *exactly* 200 microliters.” (*Id.* at 36–38).

I find that the meaning of a “volume” of “200 microliters” is sufficiently clear without specifying that it is “exactly 200 microliters.” Plaintiff removed the ambiguating term “about” to overcome its written description rejection during reexamination, which was delivered by the Examiner because “about” would impermissibly “provide some leeway over and under 200 microliters.” (D.I. 60, Ex. J, 2017-08-23 OA, at 6). It is redundant to further specify that the “volume” be “exactly 200 microliters.”

I therefore do not think it is necessary to construe “wherein the sample cell has a volume of 200 microliters.” Plaintiff cannot argue that “200 microliters” means “about 200 microliters.” On the other hand, whether something that is, for example, 200.1 or 200.01 microliters meets the 200 microliters limitation could be the subject of expert testimony.

5. Term 5: “alignment component of [a]/[the] calorimeter” (’175/15, 18, 24, 28; ’549/8, 11, 14, 18)

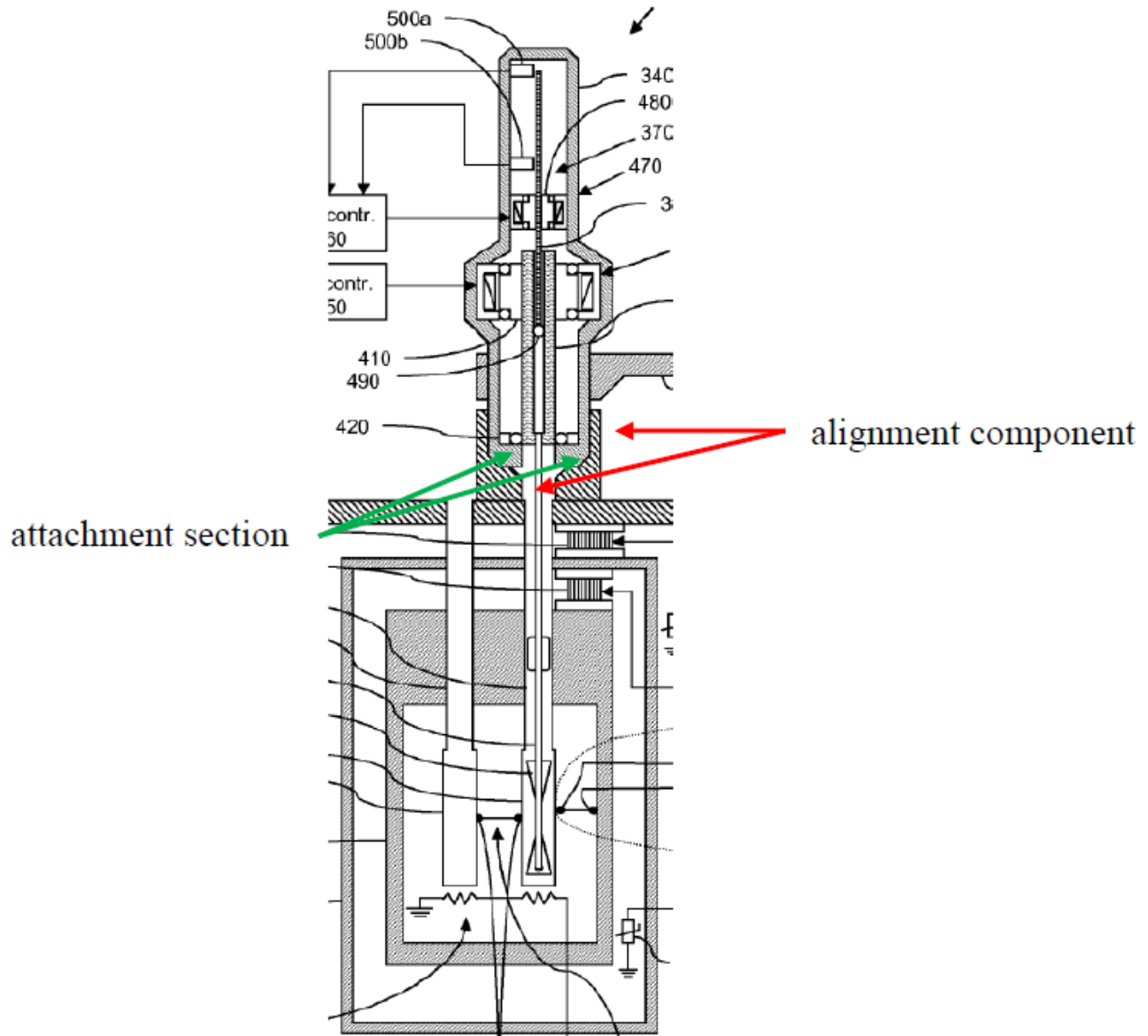
- a. *Plaintiff's proposed construction:*
 - i. Not indefinite
- b. *Defendants' proposed construction:*
 - i. Indefinite
- c. *Court's construction:*
 - i. Not indefinite

Defendants assert that the claim term is indefinite because there is no guidance from the specification or prosecution history as to the structural meaning of “alignment component.” (D.I. 78 at 40–41). Defendants note that “alignment component” does not appear in the specification,

provisional application, or pre-reexamination claims. (*Id.* at 40). The claim term is indefinite, Defendants maintain, because the specification discloses a different part, the “pipette guiding mechanism,” that accomplishes the same function as the “alignment component.” (*Id.* at 41) (citing D.I. 59-2, Ex. D, 8:5–7).

Plaintiff contends that the claim term is not indefinite. The plain language of the claim, Plaintiff argues, makes clear that the pipette assembly includes an “attachment section” that interacts with the calorimeter’s “alignment component” to align the pipette assembly. (D.I. 78 at 39). Plaintiff further argues that Fig. 2 of the ’549 Patent (reproduced below) shows the relevant

engagement of the “attachment section” with the “alignment component,” rendering the claim term not indefinite.



'549 Patent at Fig. 2 (annotated and cropped)

“[A] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572

U.S. 898, 901 (2014). In order to prove a patent is invalid for indefiniteness, there must be clear and convincing evidence. *Id.* at 912 n.10 (citing *Microsoft Corp. v. i4i Ltd. Partnership*, 564 U.S. 91, 95 (2011)).

I do not think Defendants have proven indefiniteness by clear and convincing evidence. Although Defendants are right that “alignment component” is not mentioned in the specification, and that the *labeled* components for Fig. 2 do not include the “alignment component” (D.I. 78 at 40–41), these two facts do not prove with “reasonable certainty” that a POSA would not be able to determine the “alignment component” based on Fig. 2, other embodiments, and the specification text. Indeed, no evidence was presented regarding a POSA’s ability to determine “the scope of the invention” based on the claim terms, specification, or prosecution history.

Defendants have not met their burden to prove indefiniteness by clear and convincing evidence. I therefore find the claim term not to be indefinite.

6. Term 6: “wherein the automatic pipette assembly comprises a housing comprising the syringe and the stirring motor” (’175/17; ’549/10)

- a. *Plaintiff’s proposed construction:*
 - i. Not indefinite
- b. *Defendants’ proposed construction:*
 - i. Indefinite
- c. *Court’s construction:*
 - i. Not indefinite

Defendants assert that the term “appears to contain a drafting error” because the “assembly” can “comprise[] a housing” but cannot also comprise the “syringe” and “stirring motor.” To argue that the components do not have a consistent structural relationship—preventing a POSA from understanding the scope of the claim term with “reasonable certainty”—Defendants point to differences in the housing between two embodiments (Figs. 2 and 3). (D.I. 78 at 46–47). More specifically, Defendants argue that while in Fig. 2 the “syringe”

is located entirely within the “housing,” in Fig. 3 the “syringe” is only partially located within the “housing.” Plaintiff replies that the relevant standard is whether a POSA would have difficulty understanding the claim scope with “reasonable certainty,” and that Defendants have not satisfied this standard.

I agree with Plaintiff. Defendants’ presentation of two embodiments with slightly different structural features related to the claim term does not show by clear and convincing evidence that a POSA would have any difficulty understanding the scope of the claim term. Even if neither embodiment as depicted meets the claim limitations, Defendants have not shown why the claim term as written is not understandable with “reasonable certainty” to a POSA.³

I therefore find this claim term not to be indefinite based on the present record.

7. Term 7: “arranged to restrict the movement of the pipette assembly along safe paths to ensure that the titration needle cannot be damaged during movement thereof between different positions of operation” (’549/1, 14, 17, 18)

- a. *Plaintiff’s proposed construction:*
 - i. Not indefinite
- b. *Defendants’ proposed construction:*
 - i. Indefinite
- c. *Court’s construction:*
 - i. Not indefinite

I ruled at oral argument that a POSA can understand with “reasonable certainty” whether the titration needle has been damaged, even without particular examples in the specification or intrinsic record. (D.I. 89 at 82:25–83:5). The remaining question, therefore, is whether the claim

³ I think it is possible that there is a drafting error. The claim may have been meant to say the “assembly comprises a housing containing the syringe” “Comprising” usually means to include something as a part of. It thus makes sense to say an “assembly including a housing.” Or an “assembly including a syringe.” It only makes sense to say “a housing including a syringe” if the “housing” is understood to be more like a subassembly than the more usual understanding of a shell or an enclosure or the like. If Plaintiff continues to assert the two claims with this term, we may have to revisit this term.

is indefinite with regards to “arranged to restrict the movement of the pipette assembly along safe paths.”

Defendants argue that a POSA would not be able to understand with “reasonable certainty” the scope of “which paths constitute ‘safe paths.’” (D.I. 78 at 50). First, Defendants argue that the specification and intrinsic record do not mention “safe paths” and therefore do not delimit the term. (*Id.*; D.I. 89 at 78:2–9). Because a “safe path” is merely any path used “to ensure that the titration needle cannot be damaged,” Defendants argue, the claim term does not explain to a POSA how to “understand the metes and bounds of which paths constitute ‘safe paths,’ or the structural meaning for a guiding mechanism being so ‘arranged.’” (D.I. 78 at 50). Nor is there any indication that “safe paths” is a term of art such that a POSA would understand that the term has a specific meaning with regard to the claimed invention. (D.I. 89 at 78:10–16).

Plaintiff, on the other hand, argues that the “specification discloses that pipette guiding mechanism 510 can restrict movement of pipette assembly 220 both vertical[ly] and horizontally and back and forth between positions of operation.” (D.I. 78 at 51) (citing D.I. 59-2, Ex. E at 7:8–52). Plaintiff further asserts that an embodiment in the ’549 Patent, Fig. 5, shows “what exactly the guiding mechanism does and how the guiding mechanism’s movement is restricted along safe paths.” (D.I. 89 at 83:10–20). Because the embodiment clearly presents a guiding mechanism that meets the claim limitation, Plaintiff argues that the term is not indefinite. (*Id.* at 84:13–85:1).

I agree with Plaintiff. “[B]readth is not indefiniteness.” *BASF Corp. v. Johnson Matthey Inc.*, 875 F.3d 1360, 1367 (Fed Cir. 2017). Although Plaintiff acknowledges that “safe paths” are “not limited to the groove system” used to restrict movement of the pipette assembly in the disclosed embodiment, and that it “would not limit safe paths to what’s shown in the figure”

(D.I. 89 at 85:5–10), the possibility of different configurations of the pipette guiding mechanism does not necessarily mean that a POSA could not understand with “reasonable certainty” the limitations of the claim scope. The dispositive question is not whether multiple means of satisfying the claim limitation exist, but whether it is clear to a POSA what does or does not meet the claim limitation. The claim terms here recite a specific purpose for the “safe path” structures—to protect the titration needle from damage during operation of the pipette assembly—that I think provides enough information for a POSA to understand the claim scope with “reasonable certainty.”

I therefore find that the claim term is not indefinite.

B. Broga Patents

1. Term 1: “An automated isothermal titration micro calorimetry (ITC) system, comprising” (’876/1; ’239/1)

- a. *Plaintiff’s proposed construction:*
 - i. Preamble is not limiting
- b. *Defendants’ proposed construction:*
 - i. Preamble is limiting
- c. *Court’s construction:*
 - i. Preamble is limiting (D.I. 89 at 86:23-87:12).

2. Term 2: “An isothermal titration micro calorimetry (ITC) system, comprising” (’715/1; ’239/14)

- a. *Plaintiff’s proposed construction:*
 - i. Preamble is not limiting
- b. *Defendants’ proposed construction:*
 - i. Preamble is limiting
- c. *Court’s construction:*
 - i. Preamble is limiting⁴

⁴ Although I did not decide this at oral argument, the ruling on Term 1 applies equally here.

3. **Term 3: “An automated isothermal titration micro calorimetry (ITC) system, comprising” (’876/1; ’239/1)⁵**

- a. *Plaintiff’s proposed construction:*
 - i. Plain and ordinary meaning
- b. *Defendants’ proposed construction:*
 - i. “A fully automatic isothermal titration micro calorimetry (ITC) system arranged to perform a plurality of unattended titration experiments in series, with a pipette translation unit arranged to enable automated translation of the pipette assembly between positions for titration and washing and filling, with washing and refilling of the pipette assembly and sample cell performed essentially in parallel, and a cell preparation unit arranged to automatically wash and replace liquids in the sample and reference cells.”
- c. *Court’s construction:*
 - i. Preamble is limiting; no construction necessary

Defendants argue that the preamble should be construed to limit the claim terms to reflect Plaintiff’s disavowal of claim scope during prosecution. (D.I. 78 at 70). During prosecution of the Broga patents, Defendants maintain, Plaintiff repeatedly stressed automation features in a series of amendments. (*Id.* at 70–72). Examples include “washing and filling of the pipette assembly . . . in parallel” and “arranged to perform a plurality of unattended titration experiments and series.” (D.I. 89 at 91:9–92:15). Because Plaintiff stressed the fully automatic nature of these kinds of features, Defendants argue, these features should be imported into the preamble as part of the construction. (*Id.* at 92:25–93:5).

Plaintiff, on the other hand, maintains that Defendants’ construction is an attempt to improperly import limitations into the claim. (D.I. 78 at 69). According to Plaintiff, the preamble merely “recites the intended use for the invention specified in the body of the claims” and does not recite anything related to the “fully automatic” features referenced in Defendants’

⁵ Terms 3 and 4 are the same as Terms 1 and 2. The parties decided to argue whether the preamble is limiting separately from whether there was disavowal.

construction. (*Id.*). In response to Defendants’ argument that the prosecution history disavows claim scope due to certain “stressed” features, Plaintiff argues that references to these features “were discussions of the claim language as a whole” and do not “rise to the level of disclaimer.” (D.I. 89 at 95:18–21). Plaintiff also contends that some discussion of the features, such as “arranged to perform a plurality of unattended titration experiments and series,” describe language in the pending claim at that time, so the discussion in those cases was an explanation of existing claim language rather than a “disclaimer of the word automated.” (*Id.* at 95:22–96:14).

I agree with Plaintiff that its statements during prosecution do not amount to the clear disavowal of claim scope necessary to support Defendants’ proposed construction. “Disavowal requires that the specification [or prosecution history] make[] clear that the invention does not include a particular feature . . . or is clearly limited to a particular form of the invention.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2015) (internal quotations omitted). Plaintiff’s statements during prosecution highlight fully automatic features of the claimed invention in contradistinction to the manual, or mostly manual, nature of the prior art. The statements do not unambiguously indicate that Plaintiff sought to narrow the scope of the invention to the laundry list of automatic functions Defendants propose.

Defendants’ construction would effectively transform a seven-word phrase into a new seventy-five word claim term. There is no clear disavowal of claim scope that justifies such an extensive rewriting of the preamble. I therefore reject Defendants’ proposed construction; the preamble, while limiting, does not need further construction.

4. Term 4: “An isothermal titration micro calorimetry (ITC) system, comprising”
(‘715/1; ‘239/14)

- a. *Plaintiff’s proposed construction:*
 - i. Plain and ordinary meaning

- b. *Defendants' proposed construction:*
 - i. "A fully automatic isothermal titration micro calorimetry (ITC) system arranged to perform a plurality of unattended titration experiments in series, with a pipette translation unit arranged to enable automated translation of the pipette assembly between positions for titration and washing and filling, with washing and refilling of the pipette assembly and sample cell performed essentially in parallel, and a cell preparation unit arranged to automatically wash and replace liquids in the sample and reference cells."
- c. *Court's construction:*
 - i. Preamble is limiting; no construction necessary

Defendants make the same arguments here as with the preceding Term. Plaintiff's statements during prosecution do not arise to the level of clear disavowal of claim scope. I therefore find Defendants' import of limitations into their construction of the preamble to be improper and adopt the same conclusion as with the preceding Term.

5. Term 5: "A rotatable pipette arm configured to support the pipette assembly" / "a rotatably supported arm configured to support the pipette assembly" / "a rotatable supported arm configured to support the pipette assembly" ('876/1, 4; '239/1, 21)

- a. *Plaintiff's proposed construction:*
 - i. Plain and ordinary meaning OR
 - ii. "a rotatable arm to support the pipette assembly"
- b. *Defendants' proposed construction:*
 - i. "a rotatable arm to support the pipette assembly attached at one end"
- c. *Court's construction:*
 - i. "a rotatable arm to support the pipette assembly"

The parties dispute whether the "pipette assembly" must be attached to one end of "a rotatable pipette arm." (D.I. 78 at 83, 85).

Plaintiff argues that Defendants' construction "unduly narrows the terms and is not supported by the intrinsic record." (*Id.* at 83). The plain language of the claims, Plaintiff asserts, requires only that the "rotatable arm" support the "pipette assembly," not that the "pipette assembly" be attached at one end of the "rotatable arm." (*Id.* at 84). Although the specification includes an exemplary embodiment (Fig. 2) "in which pipette translation unit 310 includes

pipette arm 380, which is rotatable on one end and supports pipette assembly 30 on the other end,” Plaintiff argues that the patentee did not unambiguously indicate an intent to limit the claim terms to the disclosed embodiment. (*Id.*).

Defendants, on the other hand, argue that the claim terms “do not provide a clear meaning of ‘configured to support,’ which is necessary to understand the structural relationship” between the “rotatable arm” and the “pipette assembly.” (*Id.* at 85). Defendants assert that the amendment during prosecution changing the limitation “a rotatable pipette translation unit configured to support the pipette assembly” to “a rotatable pipette translation unit *comprising a rotatable pipette arm* configured to support the pipette assembly” (D.I. 62-1, Ex. M, 2016-04-20 OA, at 3 and 5 (MALV_00004775–4780)) disavows claim scope beyond structures in which the “arm” (rather than the “rotatable pipette translation unit”) is “configured to support the pipette assembly” (D.I. 78 at 85). Defendants further argue that the specification only discloses one embodiment of such a configuration (Fig. 2), in which the pipette arm 380 is attached to one end of the pipette assembly 30. Because the pipette assembly is attached at one end in Fig. 2, and because, as Defendants argue, Plaintiff “disavowed claim scope beyond the specification’s disclosure,” the claim terms should be construed as “a rotatable arm to support the pipette assembly attached at one end.”

I disagree with Defendants. Nothing in the amendment of the claim to specify a “rotatable pipette arm”—or any language describing the amendment—suggests that the “pipette assembly” must be attached at one end of the “arm.” (D.I. 62-1, Ex. M at MALV_00004784, 4840–4848). Nor did the patentee assert that the “arm” is attached at one end to argue novelty or to overcome prior art challenges. This record falls short of unambiguous disavowal of claim scope or prosecution history disclaimer. Indeed, as Plaintiff notes, the “pipette assembly” could

attach at multiple points along the “rotatable pipette arm” rather than just the end and still meet the claim limitation. (D.I. 89 at 97:2–14).

I therefore construe “a rotatable pipette arm configured to support the pipette assembly” / “a rotatably supported arm configured to support the pipette assembly” / “a rotatable supported arm configured to support the pipette assembly” as “a rotatable arm to support the pipette assembly.” It is not limited to rotatable arms “attached at one end.”

6. Term 6: “fluid” (’876/14; ’715/1, 2, 3, 4, 5, 6, 7, 9; ’239/6, 8, 11, 24, 26, 29)

- a. *Plaintiff’s proposed construction:*
 - i. Plain and ordinary meaning
- b. *Defendants’ proposed construction:*
 - i. “liquid or gas”
- c. *Court’s construction:*
 - i. Plain and ordinary meaning

Plaintiff argues that the meaning of the term “fluid” is clear to a POSA and does not require construction, and that Defendants’ construction would be confusing since the dependent claims specify that “the fluid comprises at least one of a liquid and a gas.” (D.I. 78 at 86–87) (citing D.I. 1, Ex. C, claim 15). Defendants assert instead that construing “fluid” to mean “liquid or gas” would aid the jury’s understanding. (*Id.* at 87). Thus, the parties agree that a fluid can be either a liquid or a gas; the dispute here is fairly pointless.

I agree with Plaintiff that the term “fluid” is clear to a POSA. I therefore construe “fluid” to have its plain and ordinary meaning.

7. Term 7: “a fill port connection unit comprising a connection member configured to connect to the fill port thereby enabling fluid to transfer into the cavity of the syringe” (’715/1)

- a. *Plaintiff’s proposed construction:*
 - i. Plain and ordinary meaning
- b. *Defendants’ proposed construction:*

- i. “a fill port connection unit comprising a connection member configured to selectively connect to the fill port thereby enabling fluid to transfer into the cavity of the syringe”
- c. *Court’s construction:*
 - i. no construction necessary

The parties dispute whether the “connection member” is “configured to *selectively* connect to the fill port.” Plaintiff asserts that the claim term should be afforded its plain and ordinary meaning, and that the addition of “selectively” to modify “connect to the fill port” improperly imports limitations from the specification into the claim. (D.I. 78 at 88). Defendants contend that the claim does not clearly define “configured to connect” but that the specification does clarify the term’s meaning when describing a “fill port connection unit 490 being arranged to selectively connect to the fill port 500.” (*Id.*) (citing D.I. 59-2, Ex. F at 8:37–44).

I agree with Plaintiff. Nothing in the claim language indicates that the “connection member” must be “configured to *selectively* connect to the fill port.” Although I agree with Defendants that the specification’s written description describes a “fill port connection unit” that selectively connects to the “fill port,” that is insufficient to limit the claim scope. “The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims.” *Markman*, 52 F.3d at 980. Nothing in the claim language requires that the “connection member” be “configured to selectively connect,” and Defendants do not argue that their citations to the specification show clear disavowal of claim scope.

I therefore construe “a fill port connection unit comprising a connection member configured to connect to the fill port thereby enabling fluid to transfer into the cavity of the syringe” as not needing construction.

V. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion suitable for submission to the jury.